

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-28. (Cancelled)

29. (New) A method of optimizing the timing offsets with which data frames are transmitted over the Iur/Iub interfaces of a UMTS Terrestrial Radio Access Network, UTRAN, the method comprising:

for a given Iur/Iub interface or set of Iur/Iub interfaces over which identical user plane data is to be sent, defining a duration of a data frame receiving window for use by the receiving node(s);

transmitting data frames from a sending node with an initial timing offset;

reducing the timing offset at the sending node in a stepwise manner using a relatively small step value; and

adjusting the timing offset at the sending node by increasing the timing offset using a relatively large adjustment value in response to the receipt of one or more late time of arrival error reports at the sending node,

wherein the relatively small step value is smaller than the relatively large adjustment value.

30. (New) A method according to claim 29, wherein the relatively large adjustment value exceeds a combination of multiple ones of the relatively small step values.

31. (New) A method of optimizing the timing offsets with which data frames are transmitted over the Iur/Iub interfaces of a UMTS Terrestrial Radio Access Network, UTRAN, the method comprising:

for a given Iur/Iub interface or set of Iur/Iub interfaces over which identical user plane data is to be sent, defining a duration of a data frame receiving window for use by one or more receiving node(s);

transmitting data frames from a sending node with an initial timing offset;

reducing the initial timing offset using a first relatively small timing offset value until a report is received that a transmitted data frame is outside of the data frame receiving window;

in response to the report, increasing the reduced timing offset using a second relatively large timing offset adjustment value;

at the one or more receiving nodes, collecting and/or computing time of arrival statistics for received data frames;

reporting said statistics to the sending node; and

adjusting the timing offset at the sending node on the basis of the received statistics.

32. (New) A method according to claim 31, wherein the collected statistics include one or more of: the mean, minimum, maximum, and variance of times of arrival for data frames received during some time period.

33. (New) A method according to claim 32, further comprising:

sending from the sending node to the one or more receiving nodes instructions

identifying the statistics to be collected at the one or more receiving nodes and sent to the sending node.

34. (New) A method according to claim 33, wherein said instructions identify a regularity with which the statistics must be sent or events defining when the statistics should be sent.

35. (New) A method according to claim 31, further comprising:

    sending polling requests from the sending node to the or each receiving node instructing the return of statistics.

36. (New) A method according to claim 31, wherein the sending node is one of a Radio Network Controller, RNC, or a NodeB, and the one or more receiving nodes is the other of an RNC or NodeB.

37. (New) A method according to claim 31, wherein said initial timing offset is sufficient to ensure a likelihood that the frames will be received at the one or more receiving nodes within the defined receiving window.

38. (New) A method according to claim 31, wherein the relatively large timing offset adjustment value exceeds a combination of multiple ones of the relatively small timing offset values.

39. (New) A node for use in a UMTS Terrestrial Radio Access Network, UTRAN, the node comprising:

a transmitter for transmitting data frames to one or more receiving nodes via lub/lur interfaces with an initial timing offset;

electronic control circuitry arranged to:

reduce the timing offset in a stepwise manner, and

increase the reduced timing offset in response to the receipt of one or more late time of arrival error reports.

40. (New) A node according to claim 39, wherein the increase to the reduced timing offset is larger than a step reduction of the timing offset.

41. (New) A node according to claim 40, wherein the increase exceeds a combination of multiple steps.

42. (New) A node for use in a UMTS Terrestrial Radio Access Network, UTRAN, the node comprising:

means for transmitting data frames to one or more receiving nodes via lub/lur interfaces with an initial timing offset;

means for reducing the initial timing offset using a first relatively small timing offset value until a report is received that a transmitted data frame is outside of a data frame receiving window;

means, in response to the report, for increasing the reduced timing offset using a second relatively large timing offset adjustment value;  
and

means for receiving statistical data sent periodically from the or each receiving node and relating to the times of arrival of data frames at respective receiving nodes and for adjusting the timing offset on the basis of the received statistics.

43. (New) A node according to claim 42, wherein the relatively large timing offset adjustment value exceeds a combination of multiple ones of the relatively small timing offset values.

44. (New) A node according to claims 39 or 42, wherein the node is a Radio Network Controller.

45. (New ) A node according to claim 39 or 42, wherein the node is a NodeB.